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September 9, 2020

UIC Branch (WU-16J)  
US EPA region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604-3590

Re: Class II Permit Application for Enhanced Recovery Well  
Chessplay Project, Antrim County, MI  
Green River D4-7

Ms. Hansen,

Per your request, attached are revised wellbore schematics and P&A plan for the above referenced well. Corrections were necessary to eliminate confusion regarding construction of the well, mainly the absence of an open hole below the production casing. Since the Green River D4-7 was originally constructed as a gas production well, it was perforated in the Antrim zone. Proposed CO2 injection is intended in the perforated interval. There is no open hole below production casing; space below casing shoe is filled with cement. Plug back depth for the well is the same as the bottom of the production casing depth (987').

Revised wellbore schematics and P&A plan are replacing the originally submitted documents.

If there are any questions, please contact Ms. Natalie Schrader of my staff at 231-995-4076 or reach her at [nschrader@riversideem.com](mailto:nschrader@riversideem.com)

Sincerely,

*Jim Schramski*  
James Schramski,  
VP Operations

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D C. 20460

**PLUGGING AND ABANDONMENT PLAN**

WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER

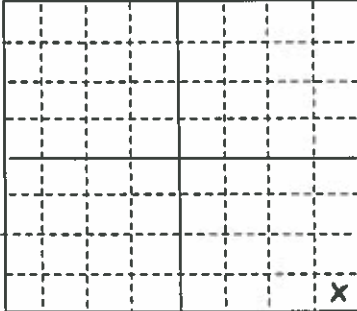
Green River D4-7

NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR

Riverside Energy Michigan, LLC.  
10691 E. Carter Rd. Suite 201  
Traverse City, MI 49684  
231-995-4001

Locate Well and Outline Unit on  
Section Plat - 640 Acres

N



STATE

MI

COUNTY

Antrim

STATE PERMIT NUMBER

Pending

SURFACE LOCATION DESCRIPTION

SE/SE/SE, Sec. 7, T30N-R6W

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location 423 ft. From (N/S) SOUTH Line of Quarter Section

And 447 ft. From (E/W) EAST Line of Quarter Section

**TYPE OF AUTHORIZATION**

☒ Individual Permit

☐ Rule

☐ Area Permit

Number of Wells in Area Permit : 1

US EPA Permit Number : Pending

**WELL  
ACTIVITY**

☐ Class I

☐ Hazardous

☐ Nonhazardous

☒ Class II

☐ Brine Disposal

☐ Hydrocarbon Storage

☒ Enhanced Recovery

☐ Class III

☐ Class IV

**CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT**

Size	Wt (lb/ft) TBG/CSG	Original Amount (CSG)	CSG to be Left in Well	Hole Size	Sacks Cement Used	Type
13-3/8"	Conductor	52'	52'	Driven	Driven	-
7"	20#	687'	687'	12-1/4"	175 sks	unknown
4-1/2"	9.5#	987'	987'	7-7/8"	150 sks	unknown

**METHOD OF EMPLACEMENT  
OF CEMENT PLUGS**

☐ Balance Method

☐ Dump Bailer Method

☐ Two Plug Method

☒ Other

**CEMENT TO PLUG AND ABANDON DATA**

	Plug # 1	Plug # 2	Plug # 3	Plug # 4	Plug # 5	Plug # 6	Plug # 7
Size of Hole or Pipe in Which Plug Will Be Placed (inches)	4-1/2"						
Calculated Top of Plug (ft.)	Surface						
Measured Top of Plug (ft.)	n/a						
Depth to Bottom of Plug (ft.)	987'						
Sacks of Cement to be Used	76						
Slurry Volume to be Used (cu. Ft.)	90						
Slurry Weight (lb./gal.)	15.6						
Type of Cement, Spacer or Other Material Used	Class A						
Type of Preflush Used							

**DESCRIPTION OF PLUGGING PROCEDURE**

MI Service Unit. TOH w/ packer & tubing. TIH w/ flow-thru retainer. Set retainer at 830' TOH w/ tbgr. Pump 12 sacks and drop wiper plug. Pump 64 sacks to surface. Cut csg 4' below ground level. Weld plate on sub. Restore location.

**ESTIMATED COST OF PLUGGING AND ABANDONMENT**

Cement	\$10,000	Cast Iron Bridge Plug	\$0
Logging	\$0	Cement Retainer	\$6,000
Rig or Pulling Unit	\$4,000	Miscellaneous	\$5,000
		Total	\$25,000

**CERTIFICATION**

I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref 40 CFR 144.32)

NAME AND OFFICIAL TITLE

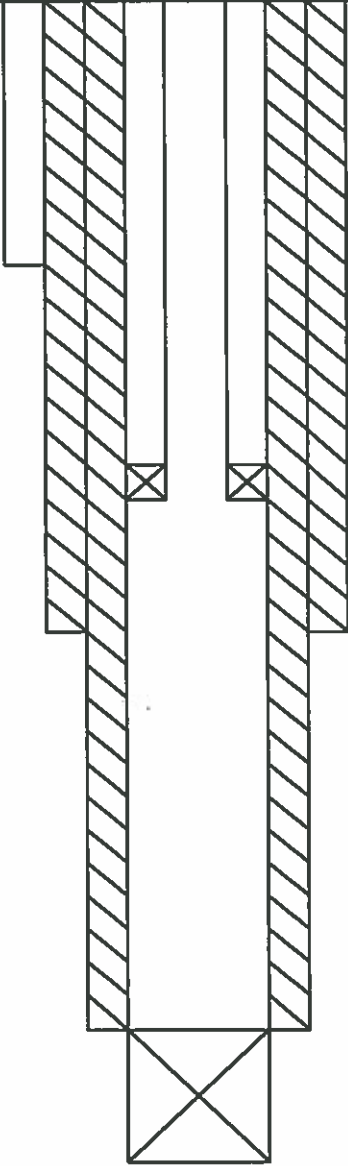
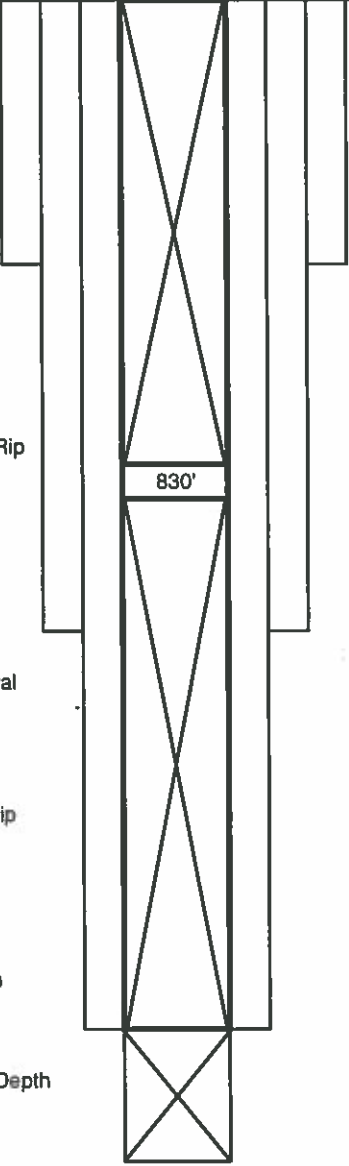
Jim Schramski, VP Operations

SIGNATURE

*Jim Schramski*

DATE SIGNED

09/09/20

ORIGINAL WELL CONSTRUCTION DURING OPERATION				PLUGGING AND ABANDONMENT CONSTRUCTION			
Green River D4-7				Green River D4-7			
Surface				Surface			
Top of cement surface				Top Plug Interval			
175 sks				0' - 830'			
Top of cement				*USDW Base Plug Interval			
n/a				830' - 987'			
				*Intermediate Cut/Rip Point Plug Interval			
				n/a to n/a			
				*Middle Plug Interval			
				n/a to n/a			
Top of Cement Surf							
150 sks				*Long String Cut/Rip Point Plug Interval			
				n/a to n/a			
Perforations				Bottom Plug Depth			
805' - 940'				n/a			
				*Mechanical Plug Depth			
				n/a			

RIVERSIDE ENERGY MICHIGAN, LLC  
GREEN RIVER D4-7  
CHESSPLAY

